

REMARKS

Claims 40-80 are pending in the application. Claims 40-80 were rejected. Claims 40, 41, 51, 55-58, 62, 63, 67, 72, 73, and 76-78 are amended. Claims 40 and 67 are the independent claims. Reconsideration of the amended application is respectfully requested.

The undersigned would like to thank the Examiner for conducting an interview on April 1, 2003. As explained during the interview, MRI systems have been improved in recent years, particularly to reduce the time necessary to perform a scan and to expand the space in which a patient must be positioned during the scan. However, the perception persists that an MRI scan requires a patient to remain still in a claustrophobic space for a period of time that is uncomfortably long. This misconception is prevalent not only among potential patients, who experience anxiety at the thought of undergoing an MRI scan, but also among medical personnel who haven't had experience with more modern systems. MRI system manufacturers have a particularly difficult time in convincing patients and medical personnel that advancements in the field have overcome the traditional problems through the use of conventional marketing material. Patients and medical personnel alike respond better to actual demonstrations of MRI scans using newer systems, whether the demonstration is a real scan or a simulation. In this way, they can experience the more comfortable process, which overcomes the anxiety that is a unique obstacle for MRI manufacturers.

The difficulty in providing live demonstrations of a scan procedure is convincing people to go to the scanner location to experience the demonstration. Scanners are large and expensive, and it is not feasible to provide demonstration models at a number of

convenient locations to make it easier for people to attend a presentation. Because of the size of the system, mobile units for this purpose have not been constructed previously, and there has otherwise been no reason to fabricate a simulation system. The present inventors have developed the claimed system to overcome the barriers particular to MRI scanner marketing, which barriers have not been addressed previously in this manner.

The Examiner rejected claims 54-66 under 35 USC §112, first paragraph, as including subject matter that was not described in the specification in such a way as to enable one of skill in the art to make or use the invention. The Examiner asserted that no structural features are disclosed in the specification that would enable the limitation that the scanner device is expandable laterally. This feature is disclosed in the written description as originally filed. For example, on page 11, at lines 13-21, it is disclosed that the scanner can be expanded in one or more lateral directions. See also Fig. 2. While no particular expansion mechanism is described or shown, Fig. 2 shows that only the frame of the scanner is expanded. Mechanisms that allow such expansion are well-known in the mechanical arts, and need not be specified in detail in order to allow one of skill in the art to practice the claimed invention. For example, the Examiner himself cites Hegedus as showing an exemplary expandable structure for a different type of application. The particular mechanism that allows the expansion is not important, and any known mechanical expansion means can be used by a skilled artisan in practicing the invention. The rejection, therefore, should be withdrawn.

The Examiner rejected claims 51, 52, 55-66, 76, and 77 under 35 USC §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter that the applicants regard as the invention. The Examiner

asserted that certain terms are very broad, and does not define the structural elements that are intended to be encompassed by the claims. Claim 51 is amended to change “audio/visual equipment” to “a video monitor and electronic equipment that provides pre-recorded audiovisual presentations on the video monitor”. Claim 52 is amended to change “network access point” to “terminal connected for communication via a network”. Claim 76 is amended to change “informational material” to “printed material including technical and operational information about the operational magnetic resonance imaging scanner”. Claim 77 is amended to change “marketing material” to “printed material including marketing information about the operational magnetic resonance imaging scanner”. Claim 55 is amended to change “substantially the same size as an operational MRI scanner” to “a full-scale replica of an actual operational MRI scanner”. Claim 56 is amended to change “is expandable to an extent that at least a portion of the scanner device overhangs the platform” to “includes an unexpanded portion that does not overhang any peripheral edge of the platform, and an expansion portion that at least in part overhangs a peripheral edge of the platform when the scanner device is expanded laterally”. It is respectfully submitted that the new recitations are definite, and the rejections should be withdrawn.

The Examiner rejected the claims under 35 USC §103(a) as being unpatentable over Liberman, in view of Crowley et al., and in some cases further in view of various combinations of the teachings of Sheehan et al., Lysyansky et al., Wacker, Migurski et al., Fernandez, Wright, and Spitzer et al. These references are discussed below.

Liberman

Liberman discloses a carrying case for a display board that carries information, electrical components, and product samples. The carrying case is brought to potential customers on a mobile vehicle, such as a trailer or truck. Thus, Liberman shows samples of products that are transported in a vehicle, but these samples are small enough to be attached and held on a display board. See column 1, lines 63-65; column 2, lines 23-25. Liberman does not disclose transporting an actual demonstration system to a location for viewing by potential customers, where operation of the system can be simulated for the potential customers. That is, Liberman does not disclose a fully assembled device and control equipment, disposed on a platform of a transport vehicle, as recited in independent claim 40. Further, Liberman does not disclose disposing a fully assembled device and control equipment on the platform of a transport vehicle, as recited in independent claim 67.

Crowley et al.

Crowley et al. disclose a remotely positioned MRI system. Crowley et al. disclose that the MRI system is compact and remotely positionable, but do not disclose such a system that is mobile. That is, the MRI device 10 includes an integrated surface unit 12 (magnets and antenna) that is connected to a control console 16 by a movable gantry 14. In this way, an operator at the control console can remotely position the integrated surface unit, which is remotely positionable by movement of the gantry. See column 7, lines 43 through 53 and Fig. 1. However, the system is conventional in other respects, and there is no suggestion that there would be any advantage to making the scanner mobile by disposing it on a trailer.

Further, it is not known how the teachings of Liberman, who discloses a carrying case for transporting and displaying sales information and product samples in a mobile sales unit, would be combined with the teachings of Crowley et al., who teach a functional MRI scanning system that is remotely positioned. Liberman only teaches the transportation of product samples on a display board in a carrying case. Liberman does not teach the transportation of any operational system on the platform of a transport vehicle, and it cannot be fairly asserted that one of ordinary skill in the art is taught by Liberman or by Crowley et al. that the remotely positionable scanner disclosed by Crowley et al. can be attached to the display board disclosed by Liberman, for demonstration purposes. Liberman does not disclose transport of any actual product sample other than those attached to a board; Crowley et al. does not teach a scanner that is mobile.

Even if the teachings of the respective references could be combined, it would be improper to do so because there is no motivation provided in either reference that would prompt one of ordinary skill in the art to combine these disparate teachings. Further, such combination still would not provide a mobile MRI demonstration system, including a fully assembled scanner device and operational control equipment, disposed on a platform of a transport vehicle, as recited in independent claims 40 and 67.

For at least the foregoing reasons, the rejection of claims 40-43, 47-49, 53, 67-73, 76, 77, 79, and 80 should be withdrawn.

Sheehan et al.

Sheehan et al. disclose a prescription-controlled data collection system. The system passes prescription information and other medical information to a server, via a

base unit. This information can be provided by a patient through the use of a data collect device. The passage cited by the Examiner discloses that the data collect device can communicate with the base unit over any of a number of communication channel means, including via wireless infrared communication. However, Sheehan et al. do not disclose wireless communication between a device and control equipment, by which the control equipment controls the device, as recited in claim 44. Sheehan et al. only disclose the wireless transfer of information, not of control communication. See column 5, lines 26-39. Claim 45 recites that the wireless link of claim 44 is an infrared link. For at least the given reasons, the rejection of claims 44 and 45 should be withdrawn.

Lysyansky et al.

Lysyansky et al. disclose an ultrasound training system, which retrieves and displays previously-stored ultrasound data to simulate an ultrasound scanning session. Thus, an ultrasound session is simulated in a way that personnel can be trained under supervised conditions. However, Lysyansky et al. do not disclose such a system as applied to an MRI scanning system, nor do they disclose that such a system can be made mobile by disposing the system on the platform of a transport vehicle, nor do they disclose or suggest any motivation for making such a system mobile. Such motivation or suggestion is also not provided in any of the other cited references. For example, a reading of the Lysyansky et al. reference does not give one the indication that an ultrasound procedure would be difficult for an ultrasound professional to grasp, nor that such a procedure might cause anxiety in a patient, or suggest any other problem that could be overcome by making the system mobile for demonstration purposes. Other than for training purposes in a medical facility at which such procedures would actually take

place, Lysyansky et al. offer no motivation for its use. Further, there is no suggestion in this or any of the other cited references that the teachings of this reference should be applied to an MRI scanning system, mobile or otherwise. The rejection of claims 46, 50, 74, and 75, therefore, should be withdrawn.

Wacker

Wacker discloses an on-site media trailer for editing film and video productions at the recording site. See column 2, lines 1-20. Wacker does not disclose audio-visual equipment for providing pre-recorded presentations that are related to operation of the magnetic resonance imaging scanner, or any other system disposed on the trailer platform, as recited in claim 51. Further, there is no motivation provided to provide the audio-visual equipment and network disclosed by Wacker to the Liberman or Crowley et al. inventions. Liberman discloses electrical components on the display board that provide demonstration effects; neither reference suggests adding video editing equipment to the Liberman display carrying case, or portable display boards to the Wacker media trailer. Similarly, no motivation is provided to provide the remotely-positionable MRI scanner disclosed by Crowley et al. to the film editing equipment and network in the Wacker trailer. Such combination of teachings is improper, and would not result in the claimed invention. The rejection of claims 51 and 52 should be withdrawn.

Migurski et al.

Migurski et al. disclose a vehicle-transportable field emergency medical system. This system includes an operating/post-op area and multiple triage areas, all within a transportable enclosure. The citation by the Examiner describes that modules of the system are positionable on wheeled bases after being delivered to the desired location, but

actually deployment of the system to the site takes place by helicopter or C130 transport aircraft. See column 3, lines 58-64; column 4, lines 9-30.

The cited passage also shows that the module 97 enclosure is expandable into a surgical suite from its transport configuration. That is, the room or shelter housing the medical equipment is expandable. However, Migurski et al. do not disclose medical equipment that itself has a frame that expands in size in its demonstration configuration, and certainly do not disclose an MRI scanning system that is expandable, or any large medical diagnostic equipment at all. Migurski et al. disclose medical platforms and supplies for triage and surgical support, as well as electronic communications equipment, but no diagnostic or demonstration systems, expandable or otherwise.

Further, there is no motivation provided in any of the references to combine the teachings of Migurski et al. with those of any of the other references. Liberman is a display case for a mobile sales unit. Migurski et al. is a fully functional surgical stage for use in remote areas during emergencies. These systems are not analogous art, and no suggestion is provided to combine these teachings. Crowley et al. disclose a functional, immobile MRI system. This is not compatible with the Migurski et al. transportable emergency surgical suite. That is, in an emergency, it is not likely that the lightweight, efficient surgical suite disclosed by Migurski et al. would include a fully functional MRI system, and there is no suggestion provided in either reference to do so. Further, as applied to the claims, a lightweight, helicopter-deployed surgical suite is not suitable for combination with any reference in an effort to render obvious a mobile simulated MRI system disposed on a wheeled ground transport vehicle.

In summary, Migurski et al. do not disclose the recited element, namely, an expandable MRI scanner frame. Further, there is no motivation for one of skill in the art to combine the teachings of this reference with the other cited references. Still further, the reference itself is not applicable to the claimed invention, such that use of this reference as part of any combination in an attempt to render obvious the claimed invention would be improper. The rejection of claims 54-56 should be withdrawn.

Fernandez

Fernandez discloses a mobile movie cinema, housed in a trailer that extends outwardly in its operational configuration. However, no MRI scanning system is disclosed, and there is no motivation in any of the cited references to combine the teachings of this reference with the teachings of any other reference in an attempt to render obvious the claimed invention. That is, Liberman discloses a display and carrying case for product samples and promotional material that can be used for presentations, but does not suggest that use of the case with an expandable trailer would be advantageous. Crowley et al. disclose a remotely-positionable MRI scanner, but does not suggest that the scanner can be made mobile through placement on an expandable trailer. Migurski et al. disclose a modular surgical suite that is transported by cargo carrier or helicopter and that already has expansion features that are put to use on deployment. The Migurski et al. system would not benefit from an expandable ground transport trailer, and there is no suggestion of such a benefit. The rejection of claims 57-61 and 63-66 should be withdrawn.

Wright

Wright discloses an awning that is put in place above steps outside a trailer. However, no MRI scanning system is disclosed, and there is no motivation in any of the cited references to combine the teachings of this reference with the teachings of any other reference in an attempt to render obvious the claimed invention. That is, Liberman discloses a display and carrying case for product samples and promotional material that can be used for presentations, but does not suggest that use of an awning to shield the case would be advantageous. Crowley et al. disclose a remotely-positionable MRI scanner, but does not suggest any advantage for the use of an awning or for placement inside a trailer. Migurski et al. disclose a modular surgical suite that is transported by cargo carrier or helicopter and that is completely enclosed. The Migurski et al. system would not benefit from an outside awning, and there is no suggestion of such a benefit. The Fernandez trailer is fully covered, as are the stairs leading into the enclosure, and an awning would not be beneficial, nor is such a benefit suggested. The rejection of claim 62 should be withdrawn.

Spitzer et al.

Spitzer et al. disclose a method of conducting marketing research by using videotaped productions. According to this invention, a product description or advertisement is recorded on videotape, and presented once only to members of a target group. The group is then given a written questionnaire to answer. The responses to the questionnaires are used to evaluate the effectiveness of the videotaped presentation. Providing questionnaires following the presentation of a live demonstration of the product is not disclosed. In fact, it is specifically disclosed that the videotape

presentation is provided instead of the use of a product sample or live person demonstrating the product. See column 1, lines 23-37. In contrast, the claimed method recites simulated use of a scanner device. Thus, this reference teaches away from the claimed invention, and is not proper for combination with any other reference in an attempt to render obvious the claimed invention. The rejection of claim 78, therefore, should be withdrawn.

In summary, the main references, Liberman and Crowley et al., do not have teachings that are combinable, such combination is not suggested, and any such combination would not include all the elements of the claims of the invention against which they are asserted. Liberman discloses a carrying case for display boards that hold electrical components, informational matter, and product samples, for the purpose of marketing the product. Crowley et al. disclose a remotely-positionable functional MRI scanner. The Liberman display can be transported and presented in a mobile vehicle but, other than the samples attached to the display board, there is no suggestion that the vehicle should include an operational simulated medical diagnostic device, as recited in the claims. Crowley et al. do not suggest any reason for making the disclosed MRI scanner mobile, or for having a simulation model disposed on a ground transport vehicle, as recited in the claims. None of the other cited references provides a teaching of any of the missing elements, or any suggestion to combine the teachings of these two references.